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10/671,446	09/29/2003	Fumihiro Hatayama	58604-030	6694

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EXAMINER	
DHINGRA, PAWANDEEP	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/671,446	HATAYAMA, FUMIHIRO	
	Examiner	Art Unit	
	PAWANDEEP S. DHINGRA	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-7 and 9-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7 and 9-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- This action is responsive to the following communication: Amendment after non-final action filed on 1/15/2009.
- Claims 1, 3-7, and 9-12 are pending.

Response to arguments

Applicant's arguments filed 1/15/2009 have been fully considered but they are not persuasive.

Applicant argues that Doherty fails to disclose setting positions of representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine. Applicant argues based on that *"Doherty sets respective points on the printed product corresponding to those points on the print copy and measures density spectra of the respective points on the printed product and measuring points of the ink zones on the printed product. The respective points, however, are set not on area on the image data, but on the printed product. In addition, the respective points are not related to respective ink key areas of a printing machine, but corresponds to the points on the print copy"*

In reply, examiner first asserts that please see 112 rejections made below. The examiner is not certain how the present invention is performing the above argued limitations differently than Doherty's invention.

Secondly, claims 1 & 7 recite "*setting positions of representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine".* Claims indicates setting representative points with respect to areas on image data but does not mention anything about where the representative points are being set. Claims

does not mention that points are being set on the image data and not on the printed product, it only recites setting points with respect to image data. Moreover, applicant's disclosure even mentions that representative points are set on a printed copy (see paragraph 31). Furthermore, Doherty's measuring points on the printed product represent the respective ink zones and are set with respect to the image data representing the printed product points corresponding to the respective ink zones (col. 5, lines 24-66).

Applicant further argues that Doherty fails to disclose storing the representative information on positions of said representative points based on aforementioned assertions are being moot in view of those above argued limitations shown to be met by Doherty.

Applicant further argues that Doherty fails to disclose *"in said controlling color tones, an ink feed rate is controlled, based on differences between color tones at the representative points and target color tones, by comparing image data of the prints produced and said representative points".* Applicant's argument is based on that Doherty compares the adjustment values for ink feed in the individual printing units with the respective reference values, which are determined depending upon press design and printed ink film, to adjust positions of ink keys. The adjustment values and the reference values do not represent color tones, but an operational vector component which is obtained from the relationship between the measured density spectrum and the density spectrum of the color of the paper.

In reply, examiner firstly asserts that applicant is arguing features which not claimed. The limitation(s) *"in said controlling color tones, an ink feed rate is controlled, based on differences between color tones at the representative points and target color tones, by comparing image data of the prints produced and said representative points"* no longer appears to be in the claims. Hence, applicant's arguments have been rendered moot.

Secondly, even if above limitations were to be present in the claims, color tone is a measurement of how bright the color appears on the printed copy. Doherty performs such measurements in terms of density spectra of colors measured on the printed product and density spectrum of the color of printing paper. And then compares the obtained color values (adjustment values) at the respective points with the target color values (reference values) to control the ink feed rate.

Thus, combination of references used successfully teach all the limitations of currently amended claims, see the rejection of claims below.

Drawings

Previous objections to drawings have been withdrawn in view of applicant's arguments and further explanation.

Claim Objections

Claims 1 and 7 are objected to because of the following informalities:

Amendment filed on 1/15/2009 does not include the entire text or limitations of claims 1 and 7 as presented previously in the appeal brief of 7/15/2008. The previously presented limitations of claims 1 and 7 are missing in the currently filed amendment, for

example, color tone controlling step of amended claim 1 is different from previously submitted color tone controlling step, but claim fails to indicate any such changes. Moreover, amended claim 7 no longer contains previous submitted "said controlling color tones, an ink feeding rate.." step, again those changes have not been indicated although applicant argues that said step is not being taught by prior art even though claims do not even recite such step. Several (emphasis added) more of such examples exist within the claims. According to MPEP 37 CFR 1.121, claim amendments shall be submitted with markings to indicate the changes that have been made relative to immediate prior version of claims, and the text of any deleted matter in the claims must be shown by strike-through or double brackets.

Appropriate corrections are required by the applicant.

Claim Rejections - 35 USC § 112

Applicant argues that the limitation “setting representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine” as recited in claims 1 and 7 is disclosed by paragraph 30 and figs. 3 & 7.

In reply, examiner respectfully disagrees. Figure 7 shows representative points on a print. Paragraphs 30-31 disclose that image data representing the print is divided into seven areas corresponding to seven ink key areas of the printing machine and representative points are set for the respective ink key areas of the printing machine. However, examiner has failed to find any evidence in the disclosure about what does applicant refer to as the seven ink key areas? How those representative points on the print correspond to the respective seven ink key areas of a printing machine?

Applicant argues that *"The width and number of ink key areas on a printing layout are determined by a width of one ink key in a printing machine and the size (lateral width) of a printing paper or an image to be printed. FIG. 7 teaches an example of determination on the width and number of ink key areas, in which a width of a print (lateral width of printed image data) corresponds to a width of seven keys in a printing machine"*.

In reply, examiner again fails to find any such disclosure to support the above assertions.

Furthermore, applicant states in arguments that image data is divided into seven areas corresponding to seven ink key areas of the printing machine and representative points are set for the respective ink key areas, but later states that the number of ink key areas (seven areas) are determined (correspond to) by the size (lateral width) of a printing paper or an image to be printed. Thus, even if latter statement is found to have support in the disclosure, the two statements are contradictory to each other.

Hence, the disclosure does not enable one skilled in the art to make and/or use the invention. Thus, previous 112 rejections as formulated in the office action dated 10/15/2008 still stand and are valid. The examiner has interpreted and examined the amended claims 1 & 7 to best of his understanding.

Examiner Notes

Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully

requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

   (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, and 3-6 are rejected under 35 U.S.C. 103 as being unpatentable over Shiraishi, US 2001/0038388 in view of Muramoto, US 6,798,536 further in view of Akiyama, EP 0 322 879 A2 further in view of Doherty, US 5, 224,421.

Re claim 1, Shiraishi discloses a printing control method (i.e. color management technique) in time of a printing operation having an image data creating process for creating image data for making the prints (i.e. printing plates), and a printing process for performing printing based on the image data created in the image data creating process (see abstract and paragraph 2). Shiraishi further discloses a printing process includes: an information receiving step for receiving printing information along with said image data; a printing execution step for executing printing based on said image data (see paragraphs 29, 36-37).

Shirashi fails to disclose a printing control method having a PDL data creating process for creating PDL data, and a platemaking data creating process for creating platemaking data based on said PDL data, and a printing process for performing printing based on said platemaking data, wherein said PDL data creating process includes: a representative point setting step for setting positions of representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine, for use in controlling color tones in images to be printed; and a representative point information storing step for storing representative point information including information on the positions of said representative points set per respect to areas on the image data corresponding to respective ink key areas of a printing machine; and said platemaking data creating process includes: an information receiving step for receiving said representative point information along with said PDL data; a platemaking data creating step for creating said platemaking data based on said PDI, data; and a representative point information correcting step for correcting said representative point information, and for storing the corrected representative point information corresponding to the created platemaking data; and receiving said representative point information along with said platemaking data; executing printing with more than one color ink based on said platemaking data; and a color tone controlling step for controlling the color tones of said representative points by using image data of the prints produced in said printing executing step by reading the image of the produced point and said representative point information received from said platemaking data creating process.

However, Muramoto teaches a printing control method having a PDL data creating process for creating PDL data, and a platemaking data (proof data) creating process for creating platemaking data based on said PDL data (see column 1, lines 17-20, column 2, lines 55-65, note that the generated PDL data is supplied to Raster Image Processor for creating image data for proofing and printing purposes), and a printing process for performing printing based on said platemaking data (see col. 3, lines 13-28), said platemaking data creating process includes: an information receiving step for receiving said PDL data (see col. 2, line 55-col. 3, line 28); a platemaking data creating step for creating said platemaking data based on said PDL, data(see column 1, lines 17-20, column 2, lines 55-65, note that the generated PDL data is supplied to Raster Image Processor for creating image data for printing or platemaking purposes); and printing process includes: receiving said platemaking data; executing printing with more than one color ink based on said platemaking data (see col. 2, line 55-col. 3, line 28); and a color tone controlling step for controlling the color tones of said data by using image data of the prints produced in said printing executing step by reading the image of the produced point and said data information received from said platemaking data creating process (see col. 1, lines 17-20, col. 2, line 55-col. 4, line 29).

Akiyama discloses a image data creating process (i.e. setting-up process) includes: a representative point (i.e. reference point) setting step for setting positions of representative points (i.e. reference points, see figure 3) with respect to areas on the image data (see figures 2-3), for use in controlling color tones in images (see column 1, lines 1-30); and a representative point information storing step for storing representative

point information including information on positions of said representative points (see column 1, lines 49-53, column 4, lines 8-14, column 5, lines 32-37); and a color tone controlling step for controlling the color tones of the prints by using image data of the prints produced (i.e. displayed) and representative point information (see column 4, line 15 - column 5, line 41, and column 1, lines 4-7); Akiyama further discloses PDL data creating step (note that corrected colour density data is PDL data) (see column 4, lines 15-56) and platemaking data creating step (note that the corrected colour density data converted into YMCK data is the Platemaking data, see column 4, line 57 – column 5, line 25) and a representative point information correcting step (i.e. setting-up process) for correcting said representative point information (see column 4, line 15 - column 5, line 41), and for storing the corrected representative point information corresponding to the created platemaking data and receiving said representative point information along with said PDL data (see column 4, line 15 - column 6, line 7) (see also figs. 4-5 with text) and printing process includes: receiving said representative point information along with platemaking data; executing printing with more than one color ink based on said platemaking data (see column 4, line 15 - column 6, line 7).

Doherty discloses setting positions of representative points with respect to areas on the image data corresponding to respective ink key areas of a printing machine (see abstract; column 3, line 4-column 5, line 64; claims 1, 7-12, note that respective points (representative points) are set with respect to the areas on the image data corresponding to respective ink key areas (ink zone) of a printing machine on the printing copy produced by the printing machine) for use in controlling color tones in

images to be printed (see column 1, lines 12-21; column 6, lines 3-7)); and a representative point information storing step for storing (storage device, block 1, fig. 1) representative point information including information on positions of said representative points set per respect to areas on the image data corresponding to respective ink key areas of a printing machine (see abstract; column 3, line 4-column 5, line 64), and a color tone controlling step for controlling the color tones (see fig. 1) of said representative points by using image data of the prints produced in printing executing step by reading the image of the produced point and said representative point information received (comparison and adjustments of the image data of the produced prints can be done by an operator or an automatic process, see figure 1; abstract; column 3, line 4-column 6, line 7).

It would have been advantageous to modify the method and device for managing print colors as disclosed by Shiraishi to include apparatus as taught by Muramoto, a density indicator as taught by Akiyama, and the color adjustment and controlling techniques as taught by Doherty for the benefit of adjusting *"the tone curve displayed on the display apparatus in response to displayed image manipulations entered via a manual command input device"* as taught by Muramoto at column 1, lines 10-15, having a *"density indicator for indicating the optical density level at a reference point on an image through an image correction process such as a colour correction and a tone correction"* as taught by Akiyama at column 1, lines 2-7, and having a image processing system in which "the printing process is continuously monitored and the positions of the ink keys adjusted as needed to maintain sufficient quality of the printed products" as

taught by Doherty at column 6, lines 3-7. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to combine the apparatus of Shirashi with apparatuses of Muramoto, Akiyama and Doherty to reach the aforementioned advantage.

Re claim 3, Shiraishi disclose a printing process (see abstract of Shiraishi).

Shirashi fails to disclose that a printing process is carried out for correcting the representative point information stored in said image data creating process.

However, Akiyama further discloses displaying process is carried out for correcting the representative point information stored in said image data creating process (see column 4, line 15 - column 5, line 41).

Re claim 4, Akiyama further discloses an image data correcting process (i.e. setting-up process) for correcting said image data so that the color tones (i.e. density data) at the representative points set in said representative point setting step agree with target color tones (see column 4, line 15 - column 5, line 41); wherein said information receiving step (i.e. transmission to CRT 64) is executed to receive said representative point information along with the image data corrected in said image data correcting process (see column 4, line 15 - column 5, line 41).

Re claim 5, Shirashi further discloses image data creating process includes a platemaking data creating step for creating platemaking data based on Raster Image Processing of multi-value image data (see abstract and para 0002).

Shirashi fails to disclose image data creating process includes a PDL data creating step for creating PDL data, and a platemaking data creating step for creating platemaking data based on said PDL data created in said PDL data creating step, said PDL data creating step and said platemaking data creating step using common representative point information.

Muramoto discloses image data creating process includes a PDL data creating step for creating PDL data and a platemaking data creating step for creating platemaking data based on said PDL data created in said PDL data creating step (see column 1, lines 17-20, column 2, lines 55-65, note that the generated PDL data is supplied to Raster Image Processor for creating image data for printing or platemaking purposes).

Akiyama discloses PDL data creating step (note that corrected colour density data is PDL data) (see column 4, lines 15-56) and platemaking data creating step (note that the corrected colour density data converted into YMCK data is the Platemaking data, see column 4, line 57 – column 5, line 25) using common representative point information (see column 4, line 15 - column 5, line 41).

It would have been advantageous to modify the method and device for managing print colors as disclosed by Shiraishi to include apparatus as taught by Muramoto, a density indicator as taught by Akiyama, and the color adjustment and controlling techniques as taught by Doherty for the benefit of adjusting *"the tone curve displayed on the display apparatus in response to displayed image manipulations entered via a*

manual command input device" as taught by Muramoto at column 1, lines 10-15, having a *"density indicator for indicating the optical density level at a reference point on an image through an image correction process such as a colour correction and a tone correction"* as taught by Akiyama at column 1, lines 2-7, and having a image processing system in which "the printing process is continuously monitored and the positions of the ink keys adjusted as needed to maintain sufficient quality of the printed products" as taught by Doherty at column 6, lines 3-7. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to combine the apparatus of Shirashi with apparatuses of Muramoto, Akiyama and Doherty to reach the aforementioned advantage.

(Also note that from the combined teaching of Shiraishi and Muramoto it is apparent that the multi-value image data of Shiraishi can be the PDL data, which then gets rasterized into high resolution output bitmap for platemaking purposes).

Re claim 6, Shiraishi discloses platemaking data creating step (see para 0002).

Shirashi fails to disclose that platemaking data creating step is carried out for correcting the representative point information used in said PDL data creating step.

Akiyama discloses image data creating process is carried out for correcting the representative point information used in said PDL data creating step (note that corrected colour density data is PDL data) (see column 4, line 15 - column 5, line 41).

3. Claims 7, and 9-12 are rejected under 35 U.S.C. 103 as being unpatentable over Akiyama, EP 0 322 879 A2 in view of Muramoto, US 6,798,536 further in view of Doherty, US 5, 224,421.

Re claim 7, Akiyama discloses an image data creating apparatus (see figure 1) for creating image data for producing prints (i.e. displaying or printing, col. 4, line 15 – col. 5, line 41), comprising: a representative point (i.e. reference point) setting means (OP panel 60, fig. 1) for setting positions of representative points (i.e. reference points, see figure 3) per respect to areas on the image data (see figures 2-3), for use in controlling color tones in images (see column 1, lines 1-30) (see also col. 4, line 15 - col. 6, line 7); and information storage means (image memory 52, 58 in fig. 1 and/or image memory 70 in fig. 4) for storing, along with said image data, representative point information including information on positions of said representative points (see column 1, lines 49-53, col. 4, line 8 - col. 6, line 7). Akiyama further discloses PDL data creating step (note that corrected colour density data is PDL data) (see column 4, lines 15-56) and platemaking data creating step (note that the corrected colour density data converted into YMCK data is the Platemaking data, see column 4, line 57 – column 5, line 25), and a representative point information correcting means (i.e. setting-up process) for correcting said representative point information (see column 4, line 15 - column 5, line 41), and for storing the corrected representative point information corresponding to the created platemaking data and receiving said representative point information along with PDL data (see column 4, line 15 - column 6, line 7) (see also figs. 4-5 with text).

Akiyama fails to explicitly disclose an image data creating apparatus having a PDL data creating unit for creating PDL data, and a platemaking data creating unit for creating platemaking data based on said PDL data, wherein: said PDL data creating unit includes: means for setting positions of representative points per respective ink key areas of a printing machine for use in controlling color tones in images to be printed; and information storage means for storing, along with said PDL data, representative point information including information on the positions of said representative points set per areas on the image data corresponding to respective ink key areas of a printing machine; said platemaking data creating unit includes: an information receiving means for receiving said representative point information along with said PDL data from said PDL data creating unit; a platemaking data creating means for creating said platemaking data based on said PDL data.

However, Muramoto teaches an image data creating apparatus (fig. 1) having a PDL data creating unit (elements 12, 18, fig. 1) for creating PDL data, and a platemaking data creating unit (elements 12, 18, fig. 1) for creating platemaking data based on said PDL data (see column 1, lines 17-20, column 2, lines 55-65, note that the generated PDL data is supplied to Raster Image Processor for creating image data for printing or platemaking purposes); said platemaking data creating unit includes: an information receiving means for receiving said PDL data from said PDL data creating unit (see col. 2, line 55-col. 3, line 28); a platemaking data creating means for creating said platemaking data based on said PDI, data (see column 1, lines 17-20, col. 2, line

55-col. 3, line 28, note that the generated PDL data is supplied to Raster Image Processor for creating image data for printing or platemaking purposes).

However, Doherty discloses means (see figure 1) for setting positions of representative points per respective ink key areas of a printing machine (see abstract; column 3, line 4-column 5, line 64; claims 1, 7-12, note that respective points (representative points) are set with respect to the areas on the image data (printed product) corresponding to respective ink key areas (ink zone) of a printing machine (printing proof produced by the printing machine)) for use in controlling color tones in images to be printed (see column 1, lines 12-21; column 6, lines 3-7)); and information storage means for storing (storage device, block 1, fig. 1) representative point information including information on positions of said representative points set per respect to areas on the image data corresponding to respective ink key areas of a printing machine (see abstract; column 3, line 4-column 5, line 64).

It would have been advantageous to modify the density indicator method and device as taught by Akiyama to include apparatus as taught by Muramoto, and the color adjustment and controlling techniques as taught by Doherty for the benefit of adjusting *"the tone curve displayed on the display apparatus in response to displayed image manipulations entered via a manual command input device"* as taught by Muramoto at column 1, lines 10-15, and having a image processing system in which "the printing process is continuously monitored and the positions of the ink keys adjusted as needed to maintain sufficient quality of the printed products" as taught by Doherty at column 6, lines 3-7. Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention to combine the apparatus of Akiyama with apparatuses of Muramoto, and Doherty to reach the aforementioned advantage.

Re claim 9, Akiyama further discloses said representative point information stored in said information storage means is corrected (see column 4, line 15 - column 5, line 41).

Re claim 10, Akiyama further discloses image data correcting means for correcting said image data so that color tones (i.e. density data) at the representative points agree with target color tones (see column 4, line 15 - column 5, line 41); wherein said information storage means is arranged to store said representative point information including said information on the positions of said representative points along with the image data corrected by said image data correcting means (see column 4, line 15 - column 5, line 41).

Re Claim 11, claim 11 recites identical features, as claim 5, except claim 11 is an apparatus claim. Thus, arguments made for claim 5 are applicable for claim 11.

Re Claim 12, claim 12 recites identical features, as claim 6, except claim 12 is an apparatus claim. Thus, arguments made for claim 6 are applicable for claim 12.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAWANDEEP S. DHINGRA whose telephone number is (571)270-1231. The examiner can normally be reached on M-F, 9:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. D./
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625